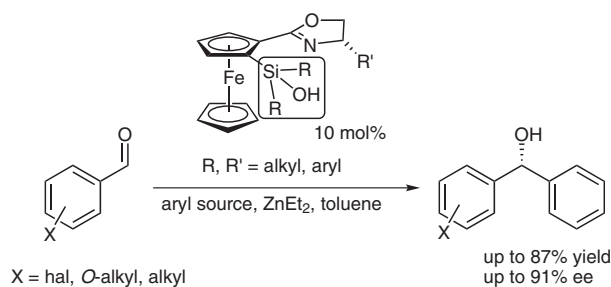


Organosilanols as Catalysts in Asymmetric Aryl Transfer Reactions



Significance: While chiral alcoholic reagents have found widespread use in organic synthesis, the silanol complement has found little. The authors have synthesized numerous ferrocene-based chiral silanols in good yields, and showed them to be competent catalysts for asymmetric aryl transfer reactions.

Comment: The use of silanols in catalysis has promising perspectives as analogues to carbon-based alcohols, due to changes in bond length, proton acidity and atomic radius. This paper describes the use of these silanols as effective catalysts with high activity. Although the observed enantioselectivities are slightly lower than those of the corresponding carbinols, the method certainly demonstrates a possibility to use silanols as a ligand for enantioselective metal catalysts.